

OATP-B (S-17): sc-66561

BACKGROUND

The organic anion transporter family of proteins mediate hepatic uptake of cardiac glycosides. OATP-A and OATP-C are both pravastatin transporters, suggesting that they are responsible for the hepatic uptake of the liver-specific hydroxymethylglutaryl-CoA reductase inhibitor in mouse, rat and human. OATP-A is expressed in liver and kidney and helps mediate sodium-independent uptake of the anionic steroid conjugates dehydroepiandrosterone sulfate, estradiol-17-glucuronide and prostaglandin. OATP-C is exclusively expressed in liver and is localized to the basolateral hepatocyte membrane. OATP-B, also known as Slco2b1 or Slc21a9, mediates the Na^+ independent transport of organic anions such as taurocholate, leukotriene C₄, thromboxane B₂ and iloprost during the absorption of bile acids in the liver.

REFERENCES

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- St-Pierre, M.V., et al. 2002. Characterization of an organic anion transporting polypeptide (OATP-B) in human placenta. J. Clin. Endocrinol. Metab. 87: 1856-1863.
- Pizzagalli, F., et al. 2002. Identification of a novel human organic anion transporting polypeptide as a high affinity thyroxine transporter. Mol. Endocrinol. 16: 2283-2296.
- Cai, S.Y., et al. 2002. An evolutionarily ancient Oatp: insights into conserved functional domains of these proteins. Am. J. Physiol. Gastrointest. Liver Physiol. 282: G702-G710.
- Takagi, M., et al. 2004. Enhancement of the inhibitory activity of Oatp antisense oligonucleotides by incorporation of 2'-O,4'-C-ethylene-bridged nucleic acids (ENA) without a loss of subtype selectivity. Biochemistry 43: 4501-4510.
- Niemi, M., et al. 2004. High plasma pravastatin concentrations are associated with single nucleotide polymorphisms and haplotypes of organic anion transporting polypeptide-C (OATP-C, SLCO1B1). Pharmacogenetics 14: 429-440.
- Satoh, H., et al. 2005. Citrus juices inhibit the function of human organic anion transporting polypeptide OATP-B. Drug Metab. Dispos. 33: 518-523.
- Kopplow, K., et al. 2005. Human hepatobiliary transport of organic anions analyzed by quadruple-transfected cells. Mol. Pharmacol. 68: 1031-1038.
- Fuchikami, H., et al. 2006. Effects of herbal extracts on the function of human organic anion transporting polypeptide OATP-B. Drug Metab. Dispos. 34: 577-582.

CHROMOSOMAL LOCATION

Genetic locus: SLCO2B1 (human) mapping to 11q13.4.

SOURCE

OATP-B (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of OATP-B of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-66561 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OATP-B (S-17) is recommended for detection of OATP-B of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for OATP-B siRNA (h): sc-62711, OATP-B shRNA Plasmid (h): sc-62711-SH and OATP-B shRNA (h) Lentiviral Particles: sc-62711-V.

Molecular Weight of OATP-B: 85 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

- Kleberg, K., et al. 2012. Transporter function and cyclic AMP turnover in normal colonic mucosa from patients with and without colorectal neoplasia. BMC Gastroenterol. 12: 78.
- Stute, P., et al. 2012. Impact of testosterone on the expression of organic anion transporting polypeptides (OATP-1A2, OATP-2B1, OATP-3A1) in malignant and non-malignant human breast cells *in vitro*. Maturitas 71: 376-384.
- Segawa, M., et al. 2013. Rapid stimulating effect of the antiarrhythmic agent amiodarone on absorption of organic anion compounds. Drug Metab. Pharmacokinet. 28: 178-186.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.